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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/714,006	11/14/2003	Gary S. Henneberry	1200213R	1954
35227	7590	11/03/2005	EXAMINER	
POLYONE CORPORATION 33587 WALKER ROAD AVON LAKE, OH 44012			DANIELS, MATTHEW J	
			ART UNIT	PAPER NUMBER
			1732	
DATE MAILED: 11/03/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/714,006	Applicant(s) HENNEBERRY, GARY S.	
	Examiner Matthew J. Daniels	Art Unit 1732	

- The MAILING DATE of this communication appears on the cover sheet with the correspondence address -

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 November 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) 6-9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/8/04, 4/13/04</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Election/Restrictions*

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-5, drawn to a method, classified in class 264, subclass 540.
  - II. Claims 6-9, drawn to an article, classified in class 220, subclass 560.03.
2. Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the article could be made by another and materially different process, such as rotational molding.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, recognized divergent subject matter, and because the search for Group II is not required for Group I, restriction for examination purposes as indicated is proper.
4. During a telephone conversation with Mr. Hornickel on 5 October 2005 a provisional election was made **with** traverse to prosecute the invention of Group I, claims 1-5. Affirmation of this election must be made by applicant in replying to this Office action. Claims 6-9 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.
5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the

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currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 1, 4, and 5** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato (USPN 3372429). **As to Claim 1**, Kato teaches a method of making a double-walled poly(vinyl chloride) containing article (1:55-60), comprising the steps of:
- a) melting a composition containing poly(vinyl chloride) (3:68-75);
  - b) continuously extruding the composition in the form of a parison, wherein the composition is made from a formulation (1:55-60 and 3:68-75);
  - c) blow molding the parison into a desired shape (Figs. 5-7e).

Kato is silent to b) 40 cm parison and at least 40 second parison formation time. However, these steps would have been prima facie obvious over Kato's method because Kato teaches that extruding speed (4:8), extruded amount (4:8), and desired length (4:14) all represent result effective variables which can be optimized to provide a desired tube. See MPEP 2144.05 II and *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Kato also teaches changing size

(5:23-30). **As to Claim 4**, cooling a blow molded article and removal are inherent in Kato's process (4:40-49). The Examiner submits that forming the parison continuously at the same rate as the article is molded, cooled, and removed, would have been inherent or prima facie obvious over Kato's method because it would have been prima facie obvious to perform the process as rapidly as possible. **As to Claim 5**, Kato teaches a toy (6:25), among other intended uses. However, the Examiner submits that these limitations do not materially affect the claimed process because they pertain only to the desired shape, which does not materially affect the claimed method. The method of Kato could be used to make all articles recited in Claim 5.

7. **Claims 2 and 3** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato (USPN 3372429) in view of Fahey (USPN 5077331). Kato teaches the subject matter of Claim 1 above under 35 USC 103(a). Kato is silent to processing aids and the other additives recited in Claims 2 and 3. However, they would have been prima facie obvious over Fahey for the following reasons:

**As to Claim 2**, Fahey teaches that processing aids are added to increase the melt strength during processing and molding operations and to reduce the melt viscosity and elasticity of the molding compounds (4:46-55). Fahey further teaches common processing aids (4:50) and that the amount of processing aid added is generally in the range of 2 to 10%. In order to "reduce the melt viscosity...of the molding composition" (4:48-50), Fahey teaches that the processing aids inherently had a higher viscosity in order to raise the viscosity of the molding composition when added to the molding composition. Fahey's process aids are specifically directed to poly(vinyl chloride) (Abstract, line 3).

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**As to Claim 3**, Fahey also teaches at least flame retardants (4:17)

It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate the method of Fahey into that of Kato in order to a) avoid the tendency for the material to turn yellow due to thermo-mechanical stress induced by processing 2:63-3:9 and 2:25-40), b) maintain its high clarity (2:63-3:9 and 2:25-40), or c) produce an economic advantage in that less work need be expended at a given set of processing conditions (1:9-14).

8. **Claim 4** is rejected under 35 U.S.C. 103(a) as being unpatentable over Kato (USPN 3372429) in view of Irwin ("Blow Molding" in Encyclopedia of Polymer Science and Engineering, 2<sup>nd</sup> edition, 1985, pages 447-478). Kato teaches the subject matter of Claim 1 above under 35 USC 103(a). **As to Claim 4**, cooling a blow molded article and removal are inherent in Kato's process (4:40-49). Irwin teaches processes in which the parison continuously forms at the same rate as the article is molded, cooled, and removed (Figs. 5, 8, or 9, and specifically Page 450, "*Continuous Extrusion*"). It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate the method of Irwin into that of Kato a) in order to increase the number of articles molded per unit time, and b) because the continuous extrusion process is best for poly(vinyl chloride) resins (Page 453, below Fig. 8) in order to reduce the occurrence of hot spots which damage material..

### ***Conclusion***


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew J. Daniels whose telephone number is (571) 272-2450. The examiner can normally be reached on Monday - Thursday, 7:30 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni can be reached on (571) 272-1196. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MJD 10/23/05



**MICHAEL P. COLAIANNI**  
**SUPERVISORY PATENT EXAMINER**